

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A machine-implemented method, comprising:
creating, within a global operating system environment provided by an operating
system, a first non-global partition which serves to isolate processes running within that
partition from other non-global partitions within the global operating system
environment; and

establishing a first file system for the first non-global partition, wherein the first
file system cannot be accessed by processes running in any non-global partition other than
the first non-global partition, and wherein the first file system comprises at least one
virtual directory, which has associated therewith a reference to another particular file
system directory, and wherein the virtual directory comprises no actual files or
directories.

2. (Original) The method of claim 1, wherein the virtual directory is part of a
virtual file system, which has been mounted into the first file system.

3. (Original) The method of claim 2, wherein the virtual file system is a
loopback file system.

4. (Original) The method of claim 1, wherein establishing the first file
system comprises:
mounting the other particular file system directory onto the virtual directory.

5. (Original) The method of claim 4, wherein mounting comprises:
storing a set of semantics associated with the virtual directory, wherein the set of
semantics indicates that the virtual directory is part of a virtual file system.

6. (Original) The method of claim 5, wherein the set of semantics further
comprises the reference to the other particular file system directory.

7. (Original) The method of claim 1, wherein the first file system has a first
root directory associated therewith, wherein the first file system is a portion of an overall
file system associated with the global operating system environment, wherein the overall
file system has an overall root directory which is above the first root directory in a
directory hierarchy, and wherein processes running with the first non-global partition
cannot traverse above the first root directory in the directory hierarchy.

8. (Original) The method of claim 1, wherein the first file system is a portion
of an overall file system associated with the global operating system environment, and
wherein the other particular file system directory resides in a portion of the overall file
system that is not a part of the first file system.

9. Canceled

10. (Original) The method of claim 1, wherein the other particular file system
directory, or a subdirectory thereof, comprises one or more actual files.

11. (Original) The method of claim 10, wherein processes running within the first non-global partition have read-only access to the one or more actual files.

12. (Original) The method of claim 1, wherein the other particular file system directory is a virtual directory, which has associated therewith a reference to yet another file system directory.

13. (Original) The method of claim 1, further comprising:
creating, within the global operating system environment, a second non-global partition which serves to isolate processes running within that partition from other non-global partitions within the global operating system environment; and
establishing a second file system for the second non-global partition, wherein the second file system cannot be accessed by processes running in any non-global partition other than the second non-global partition, and wherein the second file system comprises at least one virtual directory, which has associated therewith a reference to the other particular file system directory.

14. (Original) The method of claim 13, wherein the other particular file system directory, or a subdirectory thereof, comprises one or more actual files which are shared by the first and second non-global partitions.

15. (Original) The method of claim 13, wherein establishing the second file system comprising:

mounting the other particular file system directory onto the virtual directory of the second file system.

16. (Original) The method of claim 15, wherein mounting comprises:

storing a second set of semantics associated with the virtual directory of the second file system, wherein the second set of semantics indicates that the virtual directory of the second file system is part of a second virtual file system, and wherein the second set of semantics further comprises the reference to the other particular file system directory.

17. (Original) The method of claim 1, further comprising:

receiving a request from a process running within the first non-global partition to access a particular file;

traversing the first file system to the virtual directory;

following the reference to the other particular file system directory; and

accessing the particular file from the other particular file system directory, or a subdirectory thereof.

18. (Original) The method of claim 17, wherein accessing the particular file comprises:

determining whether a copy of the particular file is already in virtual memory; and

in response to a determination that a copy of the particular file is already in virtual memory, using the copy already in virtual memory rather than making another copy in the virtual memory.

19. (Currently Amended) An apparatus, comprising:
a mechanism for creating, within a global operating system environment provided by an operating system, a first non-global partition which serves to isolate processes running within that partition from other non-global partitions within the global operating system environment; and

a mechanism for establishing a first file system for the first non-global partition, wherein the first file system cannot be accessed by processes running in any non-global partition other than the first non-global partition, and wherein the first file system comprises at least one virtual directory, which has associated therewith a reference to another particular file system directory, and wherein the virtual directory comprises no actual files or directories.

20. (Original) The apparatus of claim 19, wherein the virtual directory is part of a virtual file system, which has been mounted into the first file system.

21. (Original) The apparatus of claim 20, wherein the virtual file system is a loopback file system.

22. (Original) The apparatus of claim 19, wherein the mechanism for establishing the first file system comprises:

a mechanism for mounting the other particular file system directory onto the virtual directory.

23. (Original) The apparatus of claim 22, wherein the mechanism for mounting comprises:

a mechanism for storing a set of semantics associated with the virtual directory, wherein the set of semantics indicates that the virtual directory is part of a virtual file system.

24. (Original) The apparatus of claim 23, wherein the set of semantics further comprises the reference to the other particular file system directory.

25. (Original) The apparatus of claim 19, wherein the first file system has a first root directory associated therewith, wherein the first file system is a portion of an overall file system associated with the global operating system environment, wherein the overall file system has an overall root directory which is above the first root directory in a directory hierarchy, and wherein processes running with the first non-global partition cannot traverse above the first root directory in the directory hierarchy.

26. (Original) The apparatus of claim 19, wherein the first file system is a portion of an overall file system associated with the global operating system environment,

and wherein the other particular file system directory resides in a portion of the overall file system that is not a part of the first file system.

27. Canceled

28. (Original) The apparatus of claim 19, wherein the other particular file system directory, or a subdirectory thereof, comprises one or more actual files.

29. (Original) The apparatus of claim 28, wherein processes running within the first non-global partition have read-only access to the one or more actual files.

30. (Original) The apparatus of claim 19, wherein the other particular file system directory is a virtual directory, which has associated therewith a reference to yet another file system directory.

31. (Original) The apparatus of claim 19, further comprising:
a mechanism for creating, within the global operating system environment, a second non-global partition which serves to isolate processes running within that partition from other non-global partitions within the global operating system environment; and
a mechanism for establishing a second file system for the second non-global partition, wherein the second file system cannot be accessed by processes running in any non-global partition other than the second non-global partition, and wherein the second

file system comprises at least one virtual directory, which has associated therewith a reference to the other particular file system directory.

32. (Original) The apparatus of claim 31, wherein the other particular file system directory, or a subdirectory thereof, comprises one or more actual files which are shared by the first and second non-global partitions.

33. (Original) The apparatus of claim 31, wherein the mechanism for establishing the second file system comprising:

a mechanism for mounting the other particular file system directory onto the virtual directory of the second file system.

34. (Original) The apparatus of claim 33, wherein the mechanism for mounting comprises:

a mechanism for storing a second set of semantics associated with the virtual directory of the second file system, wherein the second set of semantics indicates that the virtual directory of the second file system is part of a second virtual file system, and wherein the second set of semantics further comprises the reference to the other particular file system directory.

35. (Original) The apparatus of claim 19, further comprising:
a mechanism for receiving a request from a process running within the first non-global partition to access a particular file;

a mechanism for traversing the first file system to the virtual directory;
a mechanism for following the reference to the other particular file system
directory; and
a mechanism for accessing the particular file from the other particular file system
directory, or a subdirectory thereof.

36. (Original) The apparatus of claim 35, wherein the mechanism for
accessing the particular file comprises:

a mechanism for determining whether a copy of the particular file is already in
virtual memory; and
a mechanism for using, in response to a determination that a copy of the particular
file is already in virtual memory, the copy already in virtual memory rather than making
another copy in the virtual memory.

37. (Currently Amended) A machine-readable storage medium, comprising:
instructions for causing one or more processors to create, within a global
operating system environment provided by an operating system, a first non-global
partition which serves to isolate processes running within that partition from other non-
global partitions within the global operating system environment; and

instructions for causing one or more processors to establish a first file system for
the first non-global partition, wherein the first file system cannot be accessed by
processes running in any non-global partition other than the first non-global partition, ~~and~~
wherein the first file system comprises at least one virtual directory, which has associated

therewith a reference to another particular file system directory, and wherein the virtual directory comprises no actual files or directories.

38. (Currently Amended) The machine-readable storage medium of claim 37, wherein the virtual directory is part of a virtual file system, which has been mounted into the first file system.

39. (Currently Amended) The machine-readable storage medium of claim 38, wherein the virtual file system is a loopback file system.

40. (Currently Amended) The machine-readable storage medium of claim 37, wherein the instructions for causing one or more processors to establish the first file system comprises:

instructions for causing one or more processors to mount the other particular file system directory onto the virtual directory.

41. (Currently Amended) The machine-readable storage medium of claim 40, wherein the instructions for causing one or more processors to mount comprises:
instructions for causing one or more processors to store a set of semantics associated with the virtual directory, wherein the set of semantics indicates that the virtual directory is part of a virtual file system.

42. (Currently Amended) The machine-readable storage medium of claim 41, wherein the set of semantics further comprises the reference to the other particular file system directory.

43. (Currently Amended) The machine-readable storage medium of claim 37, wherein the first file system has a first root directory associated therewith, wherein the first file system is a portion of an overall file system associated with the global operating system environment, wherein the overall file system has an overall root directory which is above the first root directory in a directory hierarchy, and wherein processes running with the first non-global partition cannot traverse above the first root directory in the directory hierarchy.

44. (Currently Amended) The machine-readable storage medium of claim 37, wherein the first file system is a portion of an overall file system associated with the global operating system environment, and wherein the other particular file system directory resides in a portion of the overall file system that is not a part of the first file system.

45. Canceled

46. (Currently Amended) The machine-readable storage medium of claim 37, wherein the other particular file system directory, or a subdirectory thereof, comprises one or more actual files.

47. (Currently Amended) The machine-readable storage medium of claim 46, wherein processes running within the first non-global partition have read-only access to the one or more actual files.

48. (Currently Amended) The machine-readable storage medium of claim 37, wherein the other particular file system directory is a virtual directory, which has associated therewith a reference to yet another file system directory.

49. (Currently Amended) The machine-readable storage medium of claim 37, further comprising:

instructions for causing one or more processors to create, within the global operating system environment, a second non-global partition which serves to isolate processes running within that partition from other non-global partitions within the global operating system environment; and

instructions for causing one or more processors to establish a second file system for the second non-global partition, wherein the second file system cannot be accessed by processes running in any non-global partition other than the second non-global partition, and wherein the second file system comprises at least one virtual directory, which has associated therewith a reference to the other particular file system directory.

50. (Currently Amended) The machine-readable storage medium of claim 49, wherein the other particular file system directory, or a subdirectory thereof, comprises one or more actual files which are shared by the first and second non-global partitions.

51. (Currently Amended) The machine-readable storage medium of claim 49, wherein the instructions for causing one or more processors to establish the second file system comprises:

instructions for causing one or more processors to mount the other particular file system directory onto the virtual directory of the second file system.

52. (Currently Amended) The machine-readable storage medium of claim 51, wherein the instructions for causing one or more processors to mount comprises:

instructions for causing one or more processors to store a second set of semantics associated with the virtual directory of the second file system, wherein the second set of semantics indicates that the virtual directory of the second file system is part of a second virtual file system, and wherein the second set of semantics further comprises the reference to the other particular file system directory.

53. (Currently Amended) The machine-readable storage medium of claim 37, further comprising:

instructions for causing one or more processors to receive a request from a process running within the first non-global partition to access a particular file;

instructions for causing one or more processors to traverse the first file system to the virtual directory;

instructions for causing one or more processors to follow the reference to the other particular file system directory; and

instructions for causing one or more processors to access the particular file from the other particular file system directory, or a subdirectory thereof.

54. (Currently Amended) The machine-readable storage medium of claim 53, wherein the instructions for causing one or more processors to access the particular file comprises:

instructions for causing one or more processors to determine whether a copy of the particular file is already in virtual memory; and

instructions for causing one or more processors to use, in response to a determination that a copy of the particular file is already in virtual memory, the copy already in virtual memory rather than making another copy in the virtual memory.